In the Claims:

1. (Previously presented) In a photo lithography process on a photo resist coated substrate, a method for determining the effect of flare on line shortening, the method comprising: at a first die position on the substrate and in a first exposure, printing a dark-field mask including a flare pattern corresponding to one corner of the dark-field mask, a correction box opening, and a focus box pattern on the substrate, and in a second exposure, printing a clear-field mask including another flare pattern corresponding to another corner of the clear-field mask; at a second die position on the substrate, printing a composite mask pattern based on features of the dark-field mask and the clear-field mask; developing the printed patterns and obtaining measurements therefrom; and determining the effect of flare as a function of the measurements.

2. (Previously presented) The method of claim 1, wherein the measurements include measurements in both X and Y directions, and wherein the obtaining the measurements further comprises, measuring the dimensions of the flare box pattern of features printed with the dark-field mask and features printed with the clear-field mask; measuring the dimensions of the correction box features printed during the first exposure and features printed during the second exposure; and measuring the dimensions of the focus box pattern printed during the stepping to the first die position and measuring the dimensions of the focus box pattern printed at the second die position, the other corner being located opposite the one corner.

3. (Original) The method of claim 2, wherein the obtaining the measurements includes taking measurements from a left-leg and a right-leg of the printed features and taking measurements from a top-leg and bottom leg of printed features.

4. (Currently Amended) ~~The~~ In a photo lithography process on a photo resist coated substrate, a method ~~of claim 2, wherein~~ for determining the effect of flare on line shortening, the method comprising:

in a first exposure and at a first die position on the substrate, printing a dark-field mask including a flare pattern corresponding to one corner of the dark-field mask, a correction box opening, and a focus box pattern on the substrate;

in a second exposure at the first die position, printing a clear-field mask including another flare pattern corresponding to another corner of the clear-field mask that is located opposite the one corner;

at a second die position on the substrate, printing a composite mask pattern based on features of the dark-field mask and the clear-field mask;

developing the printed patterns and obtaining measurements from the patterns in both X and Y directions, the measurements including

the dimensions of the flare box pattern of features printed with the dark-field mask and features printed with the clear-field mask,

the dimensions of the correction box features printed during the first exposure and features printed during the second exposure,

the dimensions of the focus box pattern printed during the stepping to the first die position, and

the dimensions of the focus box pattern printed at the second die position; and

determining the effect of flare as ~~is~~ a function of the measured differences between a ~~the~~ left-leg and right-leg of a given printed feature for the X-direction, and as ~~;~~ ~~the effect of flare is~~ a function of the differences between a ~~the~~ top-leg and bottom-leg of a given printed feature for the Y-direction[[;]].

5.(Original) The method of claim 4, wherein the effect of flare is defined by the following equation, $ls_n^{Flare} = r_n^{lf\text{-}df} - r_n^{1st\text{-}2nd\ mask} - r_n^{Multiple\text{-}Single\ Exposure}$ where $r_n^{lf\text{-}df}$, $r_n^{1st\text{-}2nd\ mask}$ and $r_n^{Multiple\text{-}Single\ Exposure}$ are the measured misalignments in a given direction **n** for the light field/dark field structures (A) , the standard box in box (B) that measures the alignment between the two exposures and the measured difference between the focus box structure (C) exposed twice versus a single time.

6. (Original) The method of claim 5, wherein **n** includes the X-direction and the Y-direction.

7. (Previously presented) In a photo lithography process on a photo resist coated substrate, a method for determining the effect of flare on line shortening, the method comprising: at a first die position on the substrate and in a first exposure, printing a first mask including a flare pattern corresponding to one corner of the first mask, and in a second exposure, printing a second mask including another flare pattern corresponding to another corner of the second mask; at a second die position on the substrate, printing a composite mask pattern based on features of the first mask and the second mask; developing the printed patterns and obtaining measurements therefrom; and determining the effect of flare as a function of the measurements.

8. (Previously presented) The method of claim 7, wherein obtaining the measurements further comprises, measuring the flare pattern corresponding to the one corner of the first mask; and measuring the flare pattern corresponding to the other corner of the second mask, the other corner being located opposite the one corner, and wherein the measurements include measurements in both X and Y directions.

9. (Original) The method of claim 8 wherein obtaining the measurements further comprises, measuring the composite mask pattern at locations defined by features of the first mask and features of the second mask.

10. (Original) System within a stepper apparatus, in a photo lithography process on a photo resist coated substrate, for determining the effect of flare on line shortening, the system comprising: means for printing, at a first die position on the substrate and in a first exposure, a first mask including a flare pattern corresponding to one corner of the first mask, and in a second exposure, means for printing a second mask including another flare pattern corresponding to an opposite corner of the second mask; means for printing a composite mask pattern based on features of the first mask and the second mask, at a second die position on the substrate; means for developing the printed patterns and

obtaining measurements therefrom; and means for determining the effect of flare as a function of the measurements.

11. (Original) System for determining within a stepper apparatus, in a photo lithography process on a photo resist coated substrate, for determining the effect of flare on line shortening, the system comprising; means for stepping to a first die position on the substrate, in a first exposure, printing a dark-field mask including a left-bottom flare pattern, a correction box opening, and a focus box pattern on the substrate, in a second exposure, printing a clear-field mask including a right-top flare pattern, a correction box covering, and a focus box covering, the combination of the dark-field mask and light-field mask printing a flare pattern, a correction box, and a focus box; means for stepping to a second die position on the substrate, printing a composite mask pattern comprised of features from the dark-field mask and the light-field mask; means for developing the printed patterns; and means for determining the effect of flare, wherein the effect of flare is a function of measurements obtained from the printed patterns on the substrate comprising, means for measuring the dimensions of the flare box pattern of features printed with the dark-field mask and features printed with the light-field mask; means for measuring the dimensions of the correction box features printed during the first exposure and features printed during the second exposure; and means for measuring the dimensions of the focus box pattern printed during the stepping to the first die position and measuring the dimensions of the focus box pattern printed during the stepping to the second die position.

12. (Previously presented) A mask set for use in a wafer stepper, the mask set comprising: a first mask having features of predetermined dimensions laid out in a dark-field, the features comprising, a first portion of a flare pattern; a first portion of a box-in-a-box correction pattern; and a first portion of a focus box pattern; a second mask having features of predetermined dimensions laid out in a light-field, the features comprising, a second portion of the flare pattern; a second portion of the box-in-a-box correction pattern; the second portion of the box-in-a-box correction pattern alignable to the first portion of the box-in-a-box correction pattern; and a second portion of the focus box

pattern, the second portion of the focus box pattern alignable to the first portion of the focus box pattern.

13. (Previously presented) The mask set of claim 12 further comprising, a third mask having features of predetermined dimensions, wherein the features are defined by the combination of the features of the first mask and the features of the second mask

14. (Previously presented) The system of claim 11, wherein the measurements include measurements in both X and Y directions.

15. (Previously presented) The system of claim 11, wherein the effect of flare is a function of measurements obtained from the printed patterns on the substrate along the X-direction and the Y-direction.

16. (Previously presented) The method of claim 1, wherein the measurements include measurements in both X and Y directions, and wherein the other corner is located opposite the one corner.